

CLAIMS:

1. A method of managing power consumption of a disk drive (3) comprised by an electronic device (600), the electronic device further comprising a buffer memory (10) and a host processor (8);

the disk drive comprising a disk memory (13) comprising data; and the disk
5 drive being capable of operating in at least two operating modes, the two modes having different power consumption levels, the method comprising the step of loading data requested by the host processor from the disk into the buffer in a first operating mode of the disk drive having a first power consumption level;

characterized in that the method further comprises the following steps:

- 10 a) determining a period of time to lapse from the moment the data requested is loaded into the buffer until the data read into the buffer in the previous step is processed;
- b) determining a first amount of power that will be consumed by the disk drive during the period of time when the disk drive is left in the first operating mode during said period of time;
- 15 c) determining a second amount of power that will be consumed by the disk drive:
- i.) during the period of time when the disk drive is entered into the second operating mode having a second level of power consumption, the second level of power consumption being lower than the first level of power consumption;
- ii.) for switching from the first operating mode to the second operating mode;
- 20 iii.) for switching from the second operating mode to the first operating mode; and
- d) entering the disk drive into the second operating mode when the second amount of power is less than the first amount of power.

2. A method as claimed in claim 1, wherein determining said period of time
25 comprises the following steps:

- a) determining a processing rate at which the host processes the data stored in the buffer
- b) determining an amount of data stored in the buffer
- c) multiplying the processing rate with the amount of data stored in the buffer.

3. A method as claimed in claim 1, wherein the data request comprises a request for multiple files.

4. A method as claimed in claim 2, wherein the requested data comprises at least a part of the stream of audiovisual data and the processing rate is the streaming rate of the stream of audiovisual data.

5. A method as claimed in claim 1, wherein the disk memory is an optical disc.

6. A method as claimed in claim 1, wherein the disk memory is a hard disk.

7. A method as claimed in claim 1, further comprising the step of switching from the second operating mode to the first operating mode when the period of time has elapsed.

8. A circuit (2) for managing the power consumption of a disk drive (3) comprised by an electronic device (600), the electronic device further comprising a buffer memory (10) and a host processor (8);

the disk drive comprising a disk (13) comprising data; and the disk drive being capable of operating in at least two operating modes, the two modes having different power consumption levels, the host processor being conceived to load data from the disk into the buffer in a first operating mode of the disk drive having a first power consumption level;

characterized in that the host processor is further conceived to:

- a) determine a period of time until the data in the buffer memory is processed;
- b) determine a first amount of power that will be consumed by the disk drive during the period of time when the disk drive is left in the first operating mode during said period of time;
- c) determine a second amount of power that will be consumed by the disk drive:
 - i.) during the period of time when the disk drive is entered into the second operating mode having a second level of power consumption, the second level of power consumption being lower than the first level of power consumption;
 - ii.) while switching from the first operating mode to the second operating mode;
 - iii.) while switching from the second operating mode to the first operating mode.
- d) enter the disk drive into the second operating mode when the second amount of power is less than the first amount of power.

9. A consumer electronics device (600) comprising:

- a) the circuit as claimed in claim 8; and
- b) means for receiving a computer readable disk memory.